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PN - JP2200200 A 19900808  
PD - 1990-08-08  
PR - JP19890261139 19891005; JP19880254348 19881007  
OPD - 1988-10-07  
TI - DETERMINING METHOD OF NADH AND DETERMINATION OF BIL  
ACID USING THE SAME METHOD  
IN - SHIRAHASE YASUSHI; TAKAHASHI MASAMITSU; WATATSU  
YOSHIFUMI  
PA - INT REAGENTS CORP  
IC - C12Q1/32

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TI - Measuring bile acid using reduced nicotinamide adenine  
di:nucleotide - measured by glutathione reductase and glutathione  
or cysteine reductase and cysteine and reacting prod. with  
di:sulphide-thiol reagent  
PR - JP19880254348 19881007; JP19890261139 19891005  
PN - JP2200200 A 19900808 DW199038 000pp  
- JP2761768B2 B2 19980604 DW199827 C12Q1/32 006pp  
PA - (KOKU-N) KOKUSAI SHIYAKU KK  
IC - C12Q1/26 ; C12Q1/32  
AB - J02200200 Beta-nicotinamide adenine dinucleotide (reduced form)  
(NADH) concn. is measured by reacting NADH and glutathione  
(oxidised form) in the presence of glutathione reductase; or NADH  
and L-cystine are reacted in the presence of cystine reductase, so  
as to form beta-nicotinamide adenine dinucleotide (oxidised type)  
(NAD<sup>+</sup>) and glutathione (reduced type) or NAD<sup>+</sup> and L-cysteine,  
respectively. The glutathione (reduced type) or L-cysteine is  
reacted with a disulphide type thiol-determining reagent whereupon  
the thiol cpd. to be formed by the reaction is measured to finally  
determine the intended NADH.  
- The disulphide type thiol-determining reagent is typically  
5,5'-dithiobis(2-nitrobenzoic acid) (DTNB).  
- USE/ADVANTAGE - Determination of NADH with high accuracy and  
high sensitivity is possible. Additionally, determination of bile acid is  
also possible by the use of the method, in which bile acid is reacted  
with NAD<sup>+</sup> in the presence of 3-alpha-hydroxysteroid  
dehydrogenase, and the thus produced NADH is determined. (7pp  
Dwg.No.0/0)  
OPD - 1988-10-07

AN - 1990-285868 [30]

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PN - JP2200200 A 19900808

PD - 1990-08-08

AP - JP19890261139 19891005

IN - TAKAHASHI MASAMITSU; others02

PA - INTERNATL REAGENTS CORP

TI - DETERMINING METHOD OF NADH AND DETERMINATION OF BIL  
ACID USING THE SAME METHOD

AB - PURPOSE: To make possible to measure in high accuracy by  
reacting reduction-type beta-nicotinamide adenine  
dinucleotide (NADH) with oxidation-type glutathione in the presence  
of specific enzyme.

- CONSTITUTION: Oxidation-type glutathione, glutathione reductase  
and pH 5.5-8 buffer solution containing disulfide-type thiol  
determining reagent of 5,5'-dithiobis(2-nitrobenzoic acid) are added  
to a sample containing NADH and reacted at about 37 deg.C for  
5-20 min. Next, oxidation-type beta-nicotinamide adenine  
dinucleotide (NAD<sup>+</sup>) and reduction-type glutathione are  
generated in a reacting solution and thiol compound is conjugately  
generated from the determining reagent. Then, light absorbancy at  
300-450nm as characteristic wavelength of the thiol compound is  
measured to determine NADH. Bile acid is reacted with NAD<sup>+</sup> in  
the presence of 3alpha-hydroxysteroid dehydrogenase at pH 5.5-8,  
as necessary, and bile acid is determined according to generated  
amount of NADH.

I - C12Q1/32